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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,220	10/20/2003	Panos Kudumakis	7220-X03-055	2318

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MIAMI, FL 33180

EXAMINER

CHAWAN, VIJAY B

ART UNIT	PAPER NUMBER
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2626

MAIL DATE	DELIVERY MODE
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06/25/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/690,220

Applicant(s)

KUDUMAKIS ET AL.

Examiner

Vijay B. Chawan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- ☐ Notice of Informal Patent Application
- ☐ Other: ____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in United Kingdom on 04/25/2001. It is noted, however, that applicant has not filed a certified copy of the United Kingdom 0110132.8 application as required by 35 U.S.C. 119(b).

Claim Objections

2. Claims 1-15 are objected to because of the following informalities: It is not clear from the claim language, what the applicant means by the following terms and/or phrases: claim 1, "imposing upon", how is it being imposed upon? Claims 1-15 are replete with language such as this and should be corrected. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Serret-Avila et al., (6,785,815).

As per claim 1, Serret-Avila et al., teach a system for detecting compression of audio signals transmitted by way of a communications channel, the system comprising an encoder imposing upon said audio signals, in a predetermined relationship, first coding signals robust against audio compression and second coding signals vulnerable to contamination by noise when subjected to audio compression, and a detector operative upon signals received by way of said channel; said detector being conditioned to reject signals contaminated by said noise, and a comparator comparing the relationship between first and second coding signals as received in order to detect variation in said predetermined relationship, thereby to discern whether unauthorized compression has been applied to audio signals received by way of said communications channel (Col.2, line 56 – Col.5, line 8).

As per claim 2, Serret-Avila et al., teach a system according to claim 1 wherein said first and second coding signals are similar in nature, but are inserted in different areas of the frequency spectrum of the audio signals and/or at differing levels of modulation (Col.2, line 56 – Col.5, line 8).

As per claim 3, Serret-Avila et al., teach a system according to claim 1 wherein the said coding signals each comprise a phase modulated carrier frequency (Col.2, line 56 – Col.5, line 8).

As per claim 4, Serret-Avila et al., teach a system according to claim 1 wherein said first and second coding signals comprise similar code sequence signals, the second coding signals being inserted at a lower level and/or in a notch disposed within a frequency zone of the audio signals more sensitive to compression than are the first coding signals (Col.2, line 56 – Col.5, line 8).

As per claim 5, Serret-Avila et al., teach a system according to claim 1 wherein the first and second coding signals are inserted in one-to-one relationship into the audio signals (Col.2, line 56 – Col.5, line 8).

As per claim 6, Serret-Avila et al., teach a system according to claim 1 wherein the first and second coding signals are simultaneously inserted into respective notches in the frequency spectrum of the audio signals (Col.2, line 56 – Col.5, line 8).

As per claim 7, Serret-Avila et al., teach a system according to claim 1 wherein the first and second coding signals are inserted sequentially, in respective bursts, in the same notch (Col.2, line 56 – Col.5, line 8).

As per claim 8, Serret-Avila et al., teach a system according to claim 1 wherein the detection of the second coding signals from the audio signals as transmitted through the communications channel includes elements sensitive to noise of the kind introduced by audio signal compression (Col.2, line 56 – Col.5, line 8).

As per claim 9, Serret-Avila et al., teach a system according to claim 1 wherein the first coding signals contain usage rules prescribed by the owner of the signal content (Col.2, line 56 – Col.5, line 8).

As per claim 10, Serret-Avila et al., teach a system according to claim 1 wherein the audio signals are considered to have been subjected to compression if the predetermined relationship between the first (robust) and second (fragile) codes has been disturbed (Col.2, line 56 – Col.5, line 8).

As per claim 11, Serret-Avila et al., teach a system according to claim 10 wherein the number of robust codes recovered is used as an indication of the number of fragile codes that were inserted into the audio signal (Col.2, line 56 – Col.5, line 8).

As per claim 12, Serret-Avila et al., teach a system for detecting a first type of signal processing having been applied to audio signals transmitted by way of a communications channel, the system comprising an encoder imposing upon said audio signals, in a predetermined relationship, first coding signals robust against said first type of signal processing, and second coding signals vulnerable to contamination by noise when subjected to said first type of signal processing, and a detector operative upon signals received by way of said channel; said detector being conditioned to reject signals contaminated by said noise, and a comparator comparing the relationship between first and second coding signals as received in order to detect variation in said predetermined relationship, thereby to discern whether unauthorized signal processing of the first type has been applied to audio signals received by way of said

communications channel, characterized in that said second coding signals are robust against other types of signal processing (Col.2, line 56 – Col.5, line 8).

As per claim 13, Serret-Avila et al., teach a system as claimed in claim 12 in which said second coding signals are vulnerable to one member of the group of signal processing procedures consisting of: low bit rate, lossy compression, mix-down, downsampling, equalization, echo addition, linear speed change, amplitude compression, time scale modification, band-pass filtering, and noise addition; and in which said second coding signals are more robust to the other members of said group of signal processing procedures (Col.2, line 56 – Col.5, line 8).

As per claim 14, Serret-Avila et al., teach a system as claimed in claim 13 in which further types of coding signal are inserted into the audio signals, each type being vulnerable to a different member of said group of signal processing procedures (Col.2, line 56 – Col.5, line 8).

As per claim 15, Serret-Avila et al., teach a system for detecting a first type of signal processing having been applied to audio signals transmitted by way of a communications channel, the system comprising an encoder imposing upon said audio signals coding signals vulnerable to contamination by noise when subjected to said first type of signal processing, the coding signals including information as to the number of coding signals originally applied to the audio signal, and a detector operative upon signals received by way of said channel; said detector being conditioned to reject signals contaminated by said noise, and a comparator comparing the number of uncontaminated coding signals received with the number originally applied, thereby to

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discern whether unauthorized signal processing of the first type has been applied to audio signals received by way of said communications channel, characterized in that said coding signals are robust against other types of signal processing(Col.2, line 56 – Col.5, line 8).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


See attached PTO-892 form.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vijay B. Chawan whose telephone number is (571) 272-7601. The examiner can normally be reached on Monday Through Friday 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Vijay B. Chawan
Primary Examiner
Art Unit 2626

**VIJAY CHAWAN
PRIMARY EXAMINER**

vbc
6/16/07